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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,447	03/15/2004	David Patrick Forr	03382-P0119A	1228

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EXAMINER
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TANG, SON M

ART UNIT	PAPER NUMBER
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2612

MAIL DATE	DELIVERY MODE
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06/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/800,447

Applicant(s)

FORR ET AL.

Examiner

Son M. Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/16/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 42, claimed the concept of “the receiver receives the GPS signals along with transmitter ID signals”. The concept is not support in the original specification.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 42 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed of the concept that “receiver received GPS signals along with the transmitter ID signals”. The concept limitation is not support or disclosed in the original disclosure.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **1-25, 27-32 and 34-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Busche et al. [US 2003/0055707; Busche] in view of Hines et al. [US 6,396,413; Hines].

**Regarding to claims 1, 3 and 23:** Busche discloses a method for monitoring the presence of participants in a market research study, comprising:

- providing local signal transmitters 331-338 (EGPS) at predetermined locations within a commercial establishment to wirelessly transmit location signals associated with the locations relatively to the products [cited at ¶ 0063];

- providing a wireless receiver (attached to shopping basket) adapted to be carried by each of a plurality of participants in the retail environment, each receiver receives respective ones of the location signals that associated with the product only when participants in a vicinity of each of the product locations and stores the plot location data for use in the market research study [cited at ¶ 0063, 0065, lines 5-10 and ¶ 0071] and [Fig. 3 ¶ 0059, 0068 and 0069].

Although, Busche disclosed that the receiver is being carried by the person in the retail environment, but does not specifically show that the receiver being adapted to be carried *on* the person. The location receiver carried on a person (wrist) for recording person travel path is known in the art. Hines teaches a personal monitor system comprising a receiver 20 which is wear on a person for recording the locations and time stamp data that transmitted from the transmitters 18 located at predetermined position throughout the premises [see Fig. 1, col. 2, lines 13-24, col. 3, lines 25-67 and col. 4, lines 1-6]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention is made to have a receiver that carried on the person as suggested by Hines, to the participants in a market research study of

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Busche, for the purpose that every customer in the retail environment would be monitored for better accuracy in market research study, not just monitor the ones that need to use shopper's basket. It is perfectly to combine Busche and Hine inventions, wherein, Hines teaches that location receiver wear on a person which Busche lack of that teaching.

**Regarding to claims 2, 4:** Busche discloses all the limitation as described above, except for not specifically discloses that comparing time data and location signals to determined participants movement in the commercial establishment over time. Since, the basket receiver recorded the locations at the specific time points of its movement throughout the retail store. It is obvious of one having ordinary skill in the art to use the recorded data to determine customer movement plot in the store over time, which including the specific time at a specific location.

**Regarding to claims 5 and 14-18:** Busche discloses a method of gathering data representing customer behavior in a commercial establishment, comprising:

- providing a layout map representing a plurality of locations within a commercial establishment met by local signal transmitters 331-338 (EGPS which replace GPS) at [cited at ¶ 0063];

- providing a portable monitor (attached to each shopping basket) adapted to be carried by each of a plurality of customers in the retail environment in a customer behavior study [¶ 0065];

- gathering panelist presence data in the portable monitors 340-344, representing a presence of respective ones of the panelists at identified ones of the locations within the

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commercial establishment and with plurality of locations represented by the layout map 331-338 [cited at Fig. 3, ¶ 0065 lines 5-10, ¶ 0059, 0068 and 0069].

Busche does not specifically disclose that the receiver being adapted to be carried *on* the person. Hines teaches a personal monitor system comprising a receiver 20 which is wear on a person for recording the person travel plot [see Fig. 1, col. 2, lines 13-24, col. 3, lines 25-67 and col. 4, lines 1-6]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention is made to have a receiver that carried on the person as suggested by Hines, to the participants in a market research study of Busche, for the purpose that every customer in the retail environment would be monitored for better accuracy in market research study, not just monitor the ones that need to use shopper's basket. It is perfectly to combine Busche and Hine inventions, wherein, Hines teaches that location receiver wear on a person which Busche lack of that teaching.

**Regarding to claims 6 and 12:** Busche discloses wherein gathering data comprises receiving wireless transmitted location indicating data in the portable monitors representing ones of the locations and relative products within the commercial establishment [cited ¶ 0065 and 0074].

**Regarding to claims 7-11:** Busche disclose all the limitations as described above, and further discloses gathering data in the portable monitors representing exposure of respective ones of the panelists to a particular item or product that relatively to the transmitter within that vicinity. It is common for store or market to have pre-recorded advertisement (e.g. new products, products on sale, etc.) that broadcast via TV or any type of monitor located at the places that render the attention of the shoppers, the places would be for example near the

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entrance, outside the store or at each aisle. Therefore, it would have been obvious to one having ordinary skill in the art to have the location transmitter positioned at any appropriate locations that are being monitored, including the media data and out door advertising as claimed.

**Regarding claim 9:** Busche discloses all the limitation as described above, except for not specifically discloses the time data associate with presence data in the portable monitor. Since, the basket receiver recorded the locations at the specific time points of its movement throughout the retail store. It is obvious of one having ordinary skill in the art to use the recorded data to determine customer movement plot in the store over time, which including the specific time at a specific location.

**Regarding to claim 12:** Busche discloses all the limitation as described above, Busche further discloses that associating data representing displays products offered for sale with selected ones of the plurality of locations represented by the layout map [see ¶ 0063, lines 8-13 and ¶ 0069].

**Regarding to claims 19-20:** Busche discloses all the limitation as described above, except for not specifically discloses a step of calibrating an inertial monitoring unit within each of the portable monitors, however, Busche further disclosed that the portable receiver is used a time difference of arrival technique [cited at ¶ 0065 lines 5-7], whereby, the time difference technique feature used to determine the presence of the panelist at a location. Therefore, It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to recognize that the time difference technique determination feature of a portable monitor receiver is a calibrating feature for calibrating an inertial monitor unit.

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**Regarding to claim 21:** Busche discloses all the limitations as described above, except for specifically discloses that the media data exposure (transmitter) is an acoustic media (frequency type). Acoustic frequency is one of a known type of communication frequency in the art. As long as, the portable monitors are being received the location data from the respective transmitter via RF or any other type of frequency as it desired, to have an additional frequency receiver such as acoustic frequency receiver in the portable monitor to receive media data is a matter of design choice. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to employ any appropriate additional feature for the purpose of additional information including the acoustic media receiver as claimed.

**Regarding to claims 13 and 22:** Busche and Hines disclose a relational database storing data representing consumer behavior in a commercial establishment, comprising:

- a record of plurality locations associated with the product location at a plurality specific time points [as shown in Fig. 3, ¶ 0065, 0068 to 0069 and 0074].

Busche does not specifically discloses a first table storing first records, including a first field storing wireless transmitter positioned in commercial establishment and a second field storing wireless transmitter location of retail establishment, and a second table storing a second records each includes a first field representing a consumer participating and a second field representing a respective one of the plurality of wireless transmitters. Examiner take Official Notice that a database is memory storage of data information that can be formed and organized by multiple registers and each register can be implemented to be stored specific data. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement the database to store different data, for example transmitters position of commercial establishment in



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a first field of a first table, and transmitters location of retail establishment in a second field of a first table and so on as claimed.

**Regarding claims 23-25 and 30-32:** Busche discloses a method for monitoring the presence of participants in a market research studies, comprising:

- providing a plurality local signal transmitters 331-338 (EGPS) at predetermined locations within a commercial establishment and said transmitters in respective vicinities of products offered for sale (e.g. EGPS 334 is respective in a vicinity of product 320) and wirelessly transmit location signals associated with the locations with a respective product [cited at ¶ 0061-0063];

- providing at least one of the participants in the market the respective wireless receiver (attached to shopping basket), which receives respective ones of the location signals when participant in a vicinity of each of the product locations and stores the location data [cited at ¶ 0061, 0065] which use in the market research study [cited in Fig. 3 and ¶ 0059, 0068 and 0069];

- carrying the basket by the participants while moving through the retail environment (commercial establishment).

Busche does not specifically disclose that the receiver being adapted to be carried *on* the person. Hines teaches a personal monitor system comprising a receiver 20 that is wear on a person for recording the person travel plot [see Fig. 1, col. 2, lines 13-24, col. 3, lines 25-67 and col. 4, lines 1-6]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention is made to have a receiver that carried on the person as suggested by Hines, to the participants in a market research study of Busche, for the purpose that every customer in the retail environment would be monitored for better accuracy in market research

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study, not just monitor the ones that need to use shopper's basket. It is perfectly to combine Busche and Hine inventions, wherein, Hines teaches that location receiver *wear on* a person which Busche lack of that teaching.

**Regarding claims 27 and 34:** Busche and Hines disclose all the limitations as described above, that plurality transmitters are transmitting a database stored accurate establishment of positions of products within the store [see ¶ 0061, lines 6], would obviously including the transmitter that identifying the commercial establishment data.

**Regarding claims 28 and 35:** Busche and Hines disclose all the limitations as described above, but does not specific that said transmitters are disposed proximity to an entrance of the commercial establishment. As long as, the transmitter is being transmitted the location associate with product within the vicinity of the receiver as described above. To locate the transmitter at any appropriate location throughout the commercial establishment including outside of the commercial establishment for monitoring is a matter of design choice. Therefore, it would have been obvious to one having ordinary skill in the art to locate the transmitter at any appropriate locations to be monitored, including proximity to the entrance of the commercial establishment and outside of commercial establishment.

**Regarding claims 29 and 36:** Busche further discloses each data stored is being downloaded by plurality base stations (390-392) whereby a centralized processor is inherently included in the system for analyzing the received data, and the identity of the participants is determined through the financial transaction at the checkout base station [¶ 0065].

**Regarding claim 37:** Busche discloses a method for monitoring the presence of participants in a market research study, comprising:

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-providing local signal transmitters 331-338 (EGPS) at predetermined locations within a commercial establishment to wirelessly transmit location signals associated with the locations relatively to the products [cited at ¶ 0063];

-providing a wireless receiver (attached to shopping basket) adapted to be carried by each of a plurality of participants in the retail environment, each receiver receives respective ones of the location signals that associated with the product only when participants in a vicinity of each of the product locations and stores the plot location data for use in the market research study [cited at ¶ 0063, 0065, lines 5-10 and ¶ 0071] and [Fig. 3 ¶ 0059, 0068 and 0069].

Although, Busche disclosed transmitter transmits product location and the receiver is being carried by the person in the retail environment, but does not specifically show that the receiver being adapted to be carried *on* the person. The location receiver wears on a person for recording person travel path, by the transmitter for transmitting transmitter's identification to the receiver for indicative a location is known in the art. Hines teaches a personal monitor system comprising a receiver 20 which is wear on a person for recording the transmitter identifications and locations that transmitted from the transmitters 18 located at predetermined position throughout the premises to the receiver wear on the person [see Fig. 1, col. 2, lines 13-24, col. 3, lines 25-67 and col. 4, lines 1-6]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention is made to have a receiver that carried on the person and receive transmitter's identification that indicative of location as suggested by Hines, to the participants in a market research study of Busche, for the purpose that every customer in the retail environment would be monitored for better accuracy in market research study, not just monitor the ones that need to use shopper's basket. Furthermore, Busche stated that any position

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information other than GPS might be used to capture position information [cited at end of ¶ 0082], which means that any appropriate transmitter information method can be used to determine the location, including transmitter's ID. Therefore, it is perfectly to combine Busche and Hines inventions, wherein, Hines teaches that location receiver wear on a person and transmitter's ID which Busche lack of that teaching and they are both in location record field of invention.

**Regarding claim 38:** Refer to the rejection of claim 37 above.

**Regarding claim 39:** Refer to the rejection of claim 35 above.

**Regarding claims 40-41:** Busche and Hines disclose all the limitations as described above, except for not specifically mention that ID signal transmits as an inaudible code disposed within an acoustic signal. Since, acoustic signal that includes inaudible code is known in the communication art. Examiner takes Official Notice that acoustic signal includes inaudible code is a common technology in the art. Therefore, it would have been obvious of one having ordinary skill in the art at the time of the claimed invention to implement the acoustic signal technology in the communication system as an alternative technology.

**Regarding claim 42:** Busche and Hines disclose all the limitations as described above, except for not discloses the transmitter ID signals received along with the received GPS signals. Since, each EGPS located at a particular location associated with the product location, each EGPS should having an identification for easy to identify which EGPS is associated with the product at that location. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that each EGPS employ an ID that associated with the product location that would be received in the receiver for easy analyze the movement plot.

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6. Claims **26, 33 and 40** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Busche** in view of **Hines**, and further in view of **Duhamé** et al. [US 5,541,585; Duhamé].

**Regarding claims 26, 33 and 40:** Busche and Hines disclose all the limitations as described above, except for not specifically disclose the person presence detection in proximity to one of the signal transmitters, which is adapted to not transmit the signal when the person is not detected. **Duhamé** teaches a transmitter 16 is adapted to not transmit the interrogation signal when the person is not detected [see Fig. 3-4 and the Abstract lines 4-8]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to employ a presence detector as suggested by Duhamé in the transmitter system of Busche and Hines, for the benefit of conserving energy to the system, since the transmitter's oscillator requires more processing and power, while presence sensor may use less power than the transmitter.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 5/8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Son Tang

  
**BENJAMIN C. LEE**  
**PRIMARY EXAMINER**